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Owen Heaslip

For a Detailed View of any project, visit my Git Hub Repository Here:

<https://github.com/OwenHeaslip/Portfolio>

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A group of colorful crosses

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A blue circle with a white letter r

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A dolphin and text on a black background

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Who Will Win The 2024 Formula 1 Drivers Championship?

A screenshot of a video game

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In this project, I was tasked to create an infographic. I chose to create a snapshot of the final stretch of the 2024 F1 World Driver’s Championship. This included what points were left up for grabs and how the final two contenders matched up against each other throughout the season thus far.

NHL Basic Stat Comparison

In this project, my goal was to provide a simple, yet intriguing comparison of some of the best player in the NHL by comparing basic statistical measures. Parameters allow users to flip between metric and aggregation types. While the middle charts give numerical and bar chart comparisons, the bottom chart ranks the players in the selected stat over the first ten years of their career.

A screenshot of a screen

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Is the Cost of Your Beer at an MLB Game Worth IT?

In this project, I was tasked to recreate a visualization. The original viz displayed the cost of a beer across all MLB teams. However, to improve the design, I transformed the narrative to not only include price but also price per ounce. I also included team win percentage to see if you're getting a bang a bang for your buck. By scrolling through the seasons, users can see trends in their desired team over time.

A screenshot of a graph

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NFL Field Goal Analysis

In this project, I worked on filtering, wrangling, and summarizing the NFL's field goal data. The goal of the project was to utilize a logistic regression to predict the probability of making a field goal in outdoor games.

A graph of a goal

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To begin the project, I filtered all plays to those that were field goals located in outdoor fields, removed N/As, and created bins for distances.

The resulting histogram shows a severe drop off in success rate starting at distances greater than 60 yds.

A number of numbers and symbols

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By running a regression using all three independent variables, I can see there is not significant evidence that temperature and wind will have a meaningful impact on the outcome, so, they will not be included in the final model.



According to the confusion matrix, the final model produced 19 false negatives (type II errors) and 453 false positives (type I errors), but for the remaining 2597 observations, the model predicted the correct outcome.

A close-up of numbers

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Who are the Most and Least Lucky teams in MLB History?

In this project, I used Lahman’s database to analyze historical trends in multiple variables (walks, hits, doubles, triples, home runs, stolen bases, and caught stealing) and assess their ability to predict runs in a linear regression. By comparing predicted runs versus actual runs, we can observe which teams were lucky or not.

Linear Regression Summary

A screenshot of a paper

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Least Lucky

Most Lucky

A table with numbers and text

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A table with numbers and text

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Innovation Lab Relational Database

In this project, I have built a multi-table relational database to store data primarily on the usage of the Innovation Lab. The Innovation Lab is a room dedicated to rest and recovery for athletes at Providence College, and by storing data, coaches and other athletic staff can monitor and analyze usage patterns.

Design

A diagram of a diagram

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A diagram of a person's schedule

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SELECT P.Name AS PlayerName, COUNT(V.VID) AS VisitCount

FROM Visits V, Player P

WHERE V.PID = P.PID

GROUP BY P.Name

ORDER BY VisitCount DESC

LIMIT 10;

**List the top ten most visited players and how many times they have visited.**

A screenshot of a phone

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**Using the exists function, find the most used equipment given that the visits were by females.**

SELECT E.Name, COUNT(\*) AS UsageCount

FROM Equipment E JOIN Visits V ON E.EID = V.EID

WHERE EXISTS ( SELECT \*

FROM Visits V2 JOIN Player P ON V2.PID = P.PID

WHERE V2.EID = E.EID AND P.Gender = “F”)

GROUP BY E.Name

ORDER BY UsageCount DESC

LIMIT 1;

**More example queries can be found in Git Hub Repository**

Query Retrieval

Implementation

